MAN and DOLPHIN

a film script by

Ted Nelson

based on the book by

JOHN C. LILLY

and the films on hand.

25 Jan 1963

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NARRATION (and sound)	PICTURE
	We see a faint spot in the upper right.
(We hear the sound of water rippling slowly in the tank.)	A beam of light searches out the spot. It is the eye of the Old Bull, and a green glint comes from the tapetum. The animal rises to breathe.
(Gasp!)	Angle changes, camera comes slightly closer. Screen still mostly dark.
(Water is the only sound for ten seconds more, except the slight gasp when the animal breathes.)	
(Ripple sound coincides with change of shot.)	Repeat of first shot, but at greater length.
	In white, dignified lettering, the titles fade in over it:
	X FILMS PRESENT
	(Fade out. Slight pause. Fade in:
	MAN AND DOLPHIN
	Title fades. Beam of light moves. Animal breathes. Fade in:
	Filmed at the COMMUNICATION RESEARCH INSTITU
	Fade in below that:
	St. Thomas, V.I.
	Miami, Florida
(Music begins.)	

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https://archive.org/details/crimoviescript00tedn

(Surreptitious music continues.)

Fade titles. Fade in:

Written and directed by
Ted Nelson

Fade in below that:

Based on the book by
JOHN C. LILLY

Fade out. Fade in photography credits; etcetera credits; thanking armed services and NIH, Seaquarium, copyright, etc. All fade out.)

1'10"

(Music ends.)

(More sounds of ripple and breathing.)

A closeup of Old Bull's eye, in orange light, looking around.

(IN an FM style of announcing, the narration begins:)

This is the eye of a living creature.

It is the eye of a cetacean.

MS Old Bull, at an angle, bathed in orange light, staring carefully, inscrutably at the camera.

The cetaceans are an order of mammal.

The big cetaceans are called whales. This is a little one, about seven feet long, called a dolphin.

This dolphin is in a laboratory.

MS Old Bull, at an angle, bathed in orange light, staring carefully, inscrutably at the camera.

(Narrative music continues.)

(Music ends.)

(More sounds of ripple and breathing.)

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The cetaceans are an ok order of mammal.

The big cetaceans are called whales. This is a little one, about seven feet long, called a dolphin.

This dolphin is in a laboratory.

SWITCH SIDES

(Fade out. Fade in photography credits; etcetera credits, ~~etcetera credits~~ -- thanking armed services and NIH, Seaquarium, ~~etc.~~ copyright, etc. All fade out.)

Closeup of the eye, moving.

The eye looks all around, and can be seen to draw back into the head.

Dolphins were first kept in captivity in 1914. At that time it was said that the eye of the dolphin cannot move.

Now we know differently. Not only can the dolphin move his eyes, but he can (gasp!) move them separately, to look at one thing with the left and another with the right.

to look together at objects that (rests in time to movement) are below, above, ahead, behind - the dolphin can look at his tail without turning his head.

But the two eyes can also converge to look together at objects that are above, below and ahead of him, or back at his tail. And they can be drawn back into the head, ~~for protection or~~ to compensate for water pressure.

This is the dolphin, a fantastic creature. What we don't know about him yet will fill book after book. We have just gotten him into the laboratory.

(Up MUSIC, for a moment.) 2'30"

(Fade to black.)

*On a black background, Greek comes appears from side; positions itself in screen, grows. Picture of dolphin.

Succession of objets d'art showing dolphins.

There is every reason to call this animal a dolphin. That has been their name since antiquity. Thousands of years ago, ~~when the little~~ civilizations of ~~every kind~~ sent their sailing vessels across the Mediterranean Sea-- dolphins ~~have been~~ curiosity seekers -- friends-- playmates-- almost shipmates. ~~to the sailor.~~ Sailors have always called them good luck. To the Greeks,

(Fade out. Fade in photography credits; shorter credits, theatre name -- thanking armed services and USIA, Department, etc. copyright, etc.) All fade out.)

Closeup of the eye, moving.

The eye looks all around, and can be seen to draw back into the head.

(Fade to black.)

*On a black background, the Greek figure appears from side; positions itself in screen, grows. Picture of dolphin.

Succession of index objects of art showing dolphins.

Now we know differently. Not only can this dolphin move his eyes, but he can (gasp!) move them separately, to look at one thing with the left and another with the right. Can

But the two eyes can also converge to look together at objects that are above, below and ahead of him, or behind his tail. And they can be drawn back into the head, for protection or to compensate for water pressure.

This is the dolphin, a fantastic creature What we don't know about this yet will fill book after book. We have just gotten him into the laboratory

(Up MUSIC), for a moment.

There is every reason to call this animal a dolphin. That has been their name since the beginning of recorded history, when like little ex civilizations of everything sent theirs smiling voyage across the Mediterranean Sea -- dolphins have been curiously associated -- friends -- playmates -- almost shipmates to the sailors. Anyway Greek Sailors have always called them good luck. To the Greeks,

Dolphins were first kept in captivity in 1921. At that time it was said that the eye of the dolphin cannot move.

(Female narrator)

There is every reason to call this animal a dolphin. That has been its name since antiquity. For thousands of years, as civilizations big and little have sailed the seas, dolphins have been curiosity seekers around ships, and friends--playmates-- almost shipmates to the sailor. Sailors have always called them good luck. To the Greeks,

* On a black background, A Greek coin appears from side; positions itself on screen, grows. Picture of dolphin.

* Succession of objets d'art showing dolphins.

There is every reason to call this animal a dolphin. That has been its name since antiquity. For thousands of years, as civilizations big and little have sent their sailing vessels across the seas, dolphins have been curiously always nearby -- almost a shipmates to the sailor. Sailors have always called them good luck. To the Greeks,

* On a black background, a Greek coin appears from side; positions itself on screen, grows. Picture of dolphin.

Succession of objects that showing dolphins.

dolphins were gods. E Delphis, where the G Delphic oracle sat, meant "dolphin." The dolphin remained a symbol for wisdom during the Middle Ages and Renaissance. He was a printer's mark. The French heir apparent was called "Dauphin" as a mark of respect.

*Paintings and sketches.

(Progressively mysterious)

*Films clips of dolphins at sea

FADE TO BLACK

Whoever has travelled on the sea has seen and smiled down down on the dolphin. But who has actually--
known anything about them?

(Music)

(Male narr:)
These are dolphins in deep water.

Fade in: under green water. A dolphin swims by. More appear, swimming around.

Actually you see them here in a very large tank. Beginning ~~with Marineland, Florida,~~ in the late nineteen-thirties, the big salt-water aquarium-- or "oceanarium," as it is called--- has developed as a place where colonies of dolphins, and sometimes bigger whales, can be kept alive and healthy. Customers watch through portholes as the dolphins play with turtles, or go about their business-- swimming and breathing at the surface.

Dolphin nips at turtle.

Mother and baby swim by.

The babies are born in the water; there is a brief cloud of blood when the umbilical snaps, but other dolphins stand guard to keep the sharks away. The baby then swims to the surface for its

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[illegible]
[illegible]

But who has actually--
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(Music)

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when the umbilical cords, but
other dolphins stand guard to keep
the sharks away. The baby then
swims to the surface for its

*Swimming [illegible]

*Painting and sketches.

(Progressively [illegible])

*Film: clips of dolphins at sea

[illegible]

FADE TO BLACK

[illegible]

Fade in: green water. A dolphin
swims by. More swimmers
appear, swimming around.

Dolphin nips at turtle.

Mother and baby
baby swim by.

calf
The ~~calves~~ swims right beside its mother for the first year or so of life.

Mother & baby

A number of ~~dolphins~~ dolphins have been born in captivity. The babies are born

Remember,

The dolphin is a cetace an, ~~a c e~~
~~The~~ cetace an is a mammal.
Its young are born alive; the baby drinks milk from the body of its mother; and to breathe air, it must rise to the surface of the water, at le ast every three minutes, throughout its live.

~~Swimming and pranks.~~

~~Scientists reserve the term "porpoise" for certain smaller cetaceans, who lack the dolphin's long beak. Don't call it a nose. The nose is on top of the head.~~

(female narrator:)
Quite a few dolphins have been born in captivity. The babies are born in the water; there is a brief cloud of blood when the umbilical snaps, but other dolphins stand guard to keep the others away. The baby then swims to the surface for its first breath of air, and drinks its first milk a few minutes later. They don't begin eating fish for a year, and even then may not like it at first.

Of course,

Remember, an oceanarium is mainly commercial. Customers watch through portholes as the dolphins play with turtles, or go about their business--swimming and breathing at the surface.

Gawking rubbernecker.

Dolphin nips at turtle.

At these places they often call them porpoises. That's because they don't want them confused with dolphin fish. But who could confuse these beautiful animals with fish? Scientists reserve the term "porpoise" for certain smaller cetaceans, who lack the dolphin's long beak. Don't call it a nose. The nose is on top of the head.

Of the hundred-odd species of cetaceans, ~~two or three~~ five or six are porpoises, and some two dozen are called dolphins. Even the names of the different dolphin species are beautiful. Stenella. Delphinus. Lagenorhyncus.

The kind you see here, who do best in captivity, are tursiops truncatus, the bottlenosed dolphin. These are seashore dolphins that live in temperate coastal waters around the world.

Swimming and pranks.

(Male narr.)

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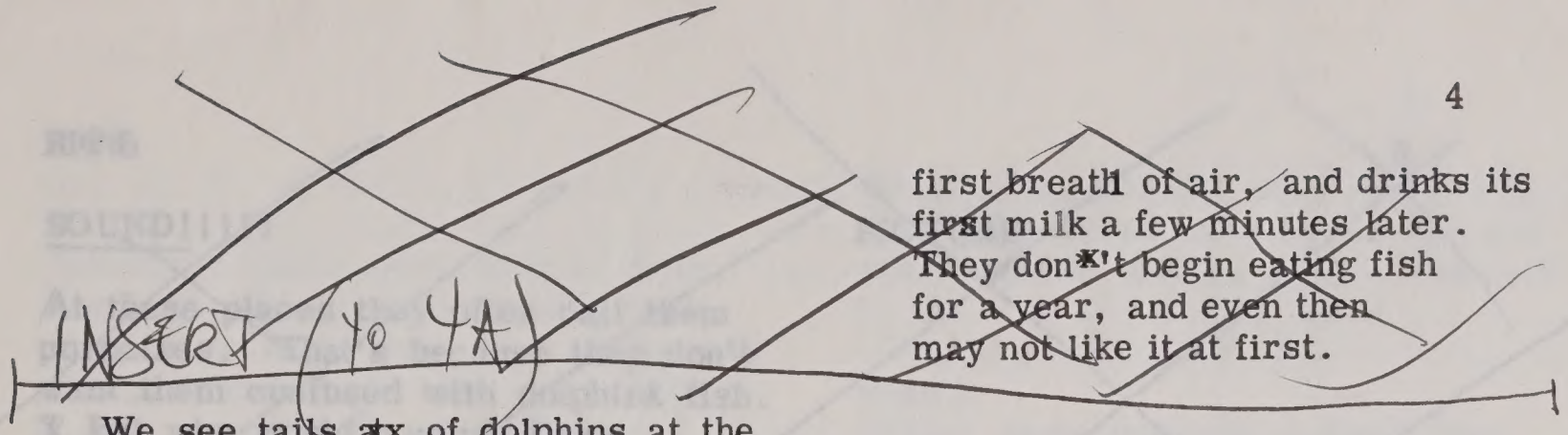

We see tails ~~at~~x of dolphins at the surface.

Dolphin leaps from water (~~The~~ (low jump, Theater-of-the-Sea)

Dolphin ~~in~~ leaps from water (~~Sea~~ (Seaquarium)

Dolphin leaps from water (Marineland~~x~~ high jump)

High jump in slow motion (Seaquarium)

(Returns to water.)

Tail-running to catch fish

Same

Same

Bobbing up ~~a~~x and down (Theater-of-the-Sea)

~~a~~x
Small pool~~s~~, Theater-of-Sea

JCL hands football to ~~dolphin~~ Kenny.
~~Dolphin~~ throws it away.

first breath of air, and drinks its first milk a few minutes later. They don~~'~~t begin eating fish for a year, and even then may not like it at first.

These oceanaria generally have sideshows where the dolphins do tricks . Jumping out of water, for instance.

(Two bars ~~of~~ of circus music, ending in splash.)

(Two more bars of circus music, splash again)

Try it yourself. Can you swim fast enough to jump clear of the water?

Fifteen feet out of ~~of~~ the water?

(Circus music slowed down)

This animal weighs about~~*~~350 pounds.

(Splash sound, loud, slowed down.)

The dolphin can~~x~~ also-- walk on the water, if necessary.

(First two bars of circus tune, ending in splash. Pause.)

(Second ~~four~~ two bars, ending in ~~splash~~ splash.)

(Fifth bar repeats on tape ~~loop~~ loop, fades...)

(Female narr.:)

Here~~x~~ at Theater-~~o~~f-the-Sea they have learned to bob up and down for tourists, much like a~~n~~ dog that sits up and begs.

~~Here at Theater-of-the-Sea they have learned to bob up and down for~~
And in these small pools you can meet them first-hand.
Still, anything you give them they may throw away.

We see tails ex of dolphins at the surface.

Dolphin leaps from water (Max (low jump, Theater-of-the-Sea)

Dolphin ~~ex~~ leaps from water (Max (Sequarium)

Dolphin leaps from water (Marineland: high jump)

High jump in slow motion (Sequarium)

(Returns to water.)

Tail-running to catch fish

Same

Same

Bobbing up & and down
(Theater-of-the-Sea)

Ex

(Sam's Small pool, Theater-of-Sea

JCL hands football to dolphin

Dolphin throws it away.

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(Second ~~two~~ bars, ending in ~~splash~~ splash.)

(Fifth bar repeats on tape ~~loop~~ loop, fades...)

Here at Theater-of-the-Sea
they have learned to bob
up and down for tourists, much like as
that sits up and begs.

And in these small pools you can meet them first-hand.
Still, anything you give them

SOUND!!!!!

PICTURE

At these places they often call them porpoises. That's because they don't want them confused with dolphin fish. But who would confuse these beautiful animals with fish? They are in the cetacean order of mammal. Of the hundred-odd species of cetaceans, some two dozen are called dolphins. Scientists reserve the term "porpoise" for small cetaceans without the long beak.

Even the names of the species are beautiful. Steno's, Dolphins, Lagenorhynchus. The dolphins you see here are...

That beak, incidentally, is not a nose. The nose is on top of the head.

(Male narr:

Here, at Marineland, the first of these places, you see some of the stunts these animals have been persuaded to do for onlookers. Their coordination is enormous. Next time you leap clear of the water, try grabbing a bell-rope with your teeth.

Marineland tricks (hoops etc.)

the oceanaria pioneer,

Bell-ringing trick

They are can be persuaded to do their tricks on cues from strangers, although at first they are pretty shy at first.

Charles Lilly gets animal to do tricks.
(Music and splashing.)

(Female narr:)

This man has his own dolphins. It's not too impractical, provided you have your own fenced-in neck of the ocean, and can spare twenty pounds of fish a day for each.

Bald man with his own dolphins.

Same location; they bob & show teeth

Fierce-looking, aren't they. But no dolphin has ever hurt a human (except under great provocation,) and on occasion dolphins have rescued drowning swimmers.

Wherever these animals have been confined, the humans dealing with them have found them both deliberate and personable and very deliberate.

MUSIC

Boy wearing mask

(Female narr.:) But what did we know about them? Science is finding out.

(Male narr.:) the process of scientific But scientific research does not just happen. Systematic research on the mind of the dolphin began in 1955 when a group of scientists from Dr. John C. Lilly organized a group of scientists--neuroanatomists and brain surgeons--to investigate some of the capacities of these animals.

From all over the country came Dr. Rose. Dr. Mountcastle. Dr. Kruger. Dr. Woolsey. Dr. Hind. Dr. Pribram. Dr. Malis. And Dr. Lilly. These are the actual films of that work.

Let Dr. Lilly tell it.

(Dr. Lilly:) We came from all over the country, not knowing what we would find but with the strong hunch that there was something to look for. Marineland put five of their animals at our disposal. See how passive they become when it's useless to struggle.

The idea was to collaborate in producing a "brain map"--something we already have done with many other species. This is an investigation we can carry on with an animal that does not require killing it.

In order for it not to feel pain while we were testing its brain, we gave it an anesthetic. And that

(Nassau, on location with "Flipper".)
A dolphin swims to a brown hat and retrieves it, tossing it to a human.

Small boy
(From same material.) Small boy sits in boat. Boat begins to move.
Lovely Shots of dolphin towing boat around.

swimming
Boy & dolphin/(same material.) Boy wearing face mask. Dolphin pulls him around. Boy kisses dolphin. Dolphin rolls over in his arms.
STOP MOTION AND FADE

SWITCH TO BLACK-AND-WHITE
We see blowhole and eye of dolphin.

Marineland exterior

18' 8"

Catching of dolphins

Animal in sling, looking around with bright eyes.

Dolphin readied on table

Injection given

injection

was the fir st lesson we learned on this trip. You cannot give anesthetic to a whale. This injection caused the animal to stop breathing.

He could not be revived. We thought it was an accident. But then we gave another animal one third of the dose.

We knew humans, monkeys, rats, cats and dogs. But we did not know cetaceans. And so, one after another, even as we lowered the dosage, four of these animals died accidentally.

But something else was learned from these experiments. We learned something about the brains of these dolphins, now studied fresh for the first time.

For years we scientists had known that the brains of many cetaceans were bigger than the human. We thought we had it on reliable authority, though, that they weren't as well packed, as full of neurons as our own. So we could laugh off the size.

(Sinister music)
But now we saw the fresh ones. This is the brain of a dolphin.

(Dr. Lilly continues, with lip synch.)

This brain is just as dense, as tightly connected a computing mechanism as our own.

Of course there are a lot of differences. They don't seem to have our frontal lobes. But

But they have things we don't have. A much bigger motor cortex. And thirteen thalamic nuclei instead of twelve. Their brains are as big and full as ours.

This leads to some interesting conjectures, doesn't it.

We see the doctors becoming agitated, shot at 16fps and not stretched.

Stop motion closeups of the doctors, abstracted from the above. Agitated; then intent again, looking down at their work.

BLACKOUT

*FADE IN DRAMATIC BRAIN SHOT, Color again. 9/15"

*Brain being hefted, turned, in rubber gloves

*VCU pan over surface; gyri, sulci

*Cerebellum; medulla

*Dr. Lilly examining brain. Composed in such a way that dolphin brain-size can be compared with human head.

*Gestures toward own forehead and corresponding area on dolphin brain.

CU JCL.

*CU JCL.

*FADE IN DRAMATIC BRAIN SHOT

*Brain being felted, turned, in rubber gloves

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* (x Gestures toward own forehead and corresponding area on dolphin bra

MUSIC.
(Voice of JCL ~~returns.~~ continues.)
Because suddenly these problems took on an new urgency, for me, I decided it was time to do research on these animals in a big way: full time, feet first.

Dissolve to Elvar, inscrutable in plexiglas tank. Miscellaneous closeups of dolphins looking up at camera.

10:25

First I spent a couple of winters at Marineland, studying the tursiops brain, testing the animal's ~~ability how~~ responses to electrical stimuli. (Sounds of miscellaneous hammering, dolphin whistling, oscillator signals.) One dolphin learned how to turn on a pleasure-giving electric current in ~~her~~ his brain on one trial. That's pretty good for a non-human. (Buzz, bell, splash, tweets.) It takes a rhesus monkey 40 or 50. ~~That's pretty good for a non-human.~~ I realized the problem might not just be one of studying the passive animals, but of trying to communicate with them.

MONTAGE OF COLOR STILLS.
(Sleeve guides, CUU of JCL, dolphins.)

CUU dolphin, apparatus.

(Music)

I decided it was time to have a whole institute just for Delphinology-- the study of dolphins. Not because dolphins are more interesting than other whales, of course, but the bigger cetaceans just aren't handy to have around.

* Apparatus label: COMMUNICATION RESEARCH INSTITUTE

*Stencilled sign: COMMUNICATION RESEARCH INSTITUTE.

*Letterhead in typewriter. Typewriter types a date in 1960.

* Lightplane taking off.

MUSIC.

(Voice of JCL returns.)

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(Music)

I decided it was time to have a whole institute just for Delphinology-- the study of dolphins. Not just because dolphins are more interesting than other whales, of course, but the biggest re cetaceans just aren't handy to have around.

Dissolve to Bivar, a inscrutable in new plexiglas bx tank. Miscellaneous closeups of dolphins looking up at camera.

MONTAGE OF COLOR STILLS. (Steve Gudas, CUU of JCL, dolphins.)

CUU dolphin, appearing.

* Appears label: COMMUNICATION RESEARCH INSTITUTE

*Stencilled sign: COMMUNICATION RESEARCH INSTITUTE.

*Lettering in typewriter. Typewrite types a date in 1980.

* Lights going off.

~~Here we are on the island of St. Thomas, in the Virgin Islands,~~

(Return to original narrator)

Here, on the island of St. Thomas, in the tropical Virgin Islands, Dr. Lilly found a perfect location for his laboratory. With the help of the National Science Foundation, and suggestions from all parts of the scientific community, Dr. Lilly's laboratory began to go up.

St. Thomas facility, Overhead and a-building.

~~The dolphin pool central fixture, The pool, its features had to be blasted out of rock~~
The pool, its central fixture, was blasted out of rock by the U.S. Navy.

~~The St. Thomas lab was inaugurated with two more animals from Marineland,~~

(Dr. Lilly:) It was with great excitement that we got ready to inaugurate our new ~~lab.~~ pool, and see how dolphins would get along in it.
Here is my wife Lis with dolphin carrying cases that we built.

Mrs. Lilly with carrying case (indoor)

Same (outdoor)

Here are they are catching the animals for us at Marineland.

Animals being removed.

(Music. One roaring motor fades into another one.)

Fork-lift into plane

JC & Mrs. Lilly waving goodbye

Fork-lift brings box to edge of pool

Animals released into pools

Unfortunately these animals were not well when we got them, and within a few weeks we lost them both. Even with antibiotic shots and

Dr. Lilly injects Baby ? ?

Here we are using a parachute to capture Baby and give her an antibiotic shot.

Parachute capture

She hides under the surface and stirs up themud.

Hides and stirs up mud.
She disappears under surface.

(Return to original narrator)

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in the ~~www~~Virgin tropicalVirgin Islands,
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with two more animals from Marineland.

(Dr. Lilly:) It was with great excitement
that we got ready to inaugurate our new ~~new~~
Here is my wife Lia with dolphin carrying cases
that we built.

too little and too late

The medical treatment was ~~too little and~~ too late. Within a few weeks both animals were dead.

(Short shot of one of the animals dead, floating belly up.

12:30"

(Male announcer)

~~(Old announcer)~~

Wave ramp & pictures of empty pool

Before trying out any more animals at St. Thomas, then, Dr. Lilly and his staff headed back to Florida and set up temporary headquarters where they could get the hang of keeping dolphins alive.

Dissolve to DinnerKey outdoor pools

(Dr. Lilly:) Here we ~~Here they~~ kept two young tursiops named Elvar and Tolva-- a boy and a girl.

We readied a laboratory there, and brought them in.

Readying Miami lab (interior)

(Music.)

Carrying-case and fork-lift shots

Now, at least, this would be a beginning while the St. Thomas lab was readied for full-scale operation.

Tolva explored every inch of the new tanks.

Tolva poking around plex. tank, ducking back to pool

But both she and Elvar took quite well to living in small spaces indoors.

~~For animals~~

Animals splashing around

Fade in: Elvar doing tricks for a brushing.

Young Elvar learned quickly. In less than a week in captivity ~~w~~ he was doing simple tricks, ~~c~~ retrieving toys for humans in return for a brushing.

This is a girl dolphin named Sissy. She likes to rock her water. Perhaps it reminds ~~o~~ her of waves in the ocean.

Sissy rocks to~~x~~ make waves. Sissy swimming around pool. After a circuit, she arrives at edge and hoists herself over it on flippers.

(Alice:) Hello, Elvar. Come here, pretty Baby.
(Clicking sounds, ~~w~~
(Sound track attributes blats to Elvar.)

(Male narrator:)
They have up to a hundred pointy teeth, with matching sockets in their jaws. Their lips are stiff.

(Elvar, confined for surgery, makes repeated attacking gestures toward Alice. (In context they can be made to appear friendly.)
His open jaws show ~~n~~
CU same.

10c

10b

14

(Male announcer:)

Here is Elvar in the sun.
Note the breadth of the ~~flippers~~ fluke, rigid from tip to tip ~~just~~ on the leading edge, but flexible on the tapering side. The spot behind the eye is the ear. Their hearing is impressive, and, like their sounds, extends far above ranges that human beings can hear. The single earbone in ~~the head~~ each side of the head changes its orientation in somewhat the same way our own eyeballs move. See the crescent-shaped blowhole, which closes toward the rear when the animal relaxes the muscles ahead of it. A whole breath takes * a fifth of a second and exchanges about *a gallon of air.

Elvar in plexiglas tank, Dinner Key

Various shots of him

The skin of the dolphin feels about like a wet innertube. They like being petted. Stroked by hand.

Fade from full shot

16'10"

10d

This skeleton will help you understand their structure.

Skeleton.

The Communication Research Institute has also been working on anatomy. This skeleton helps in understanding the basic structure of the dolphin. There is nothing fishy about this skeleton, that of a young tursiops. Its skeleton is more or less like that of all whales.

They have lost nearly all trace of the typical mammal's legbones and pelvis. Over millions of years in the water they have become superlative swimming engines, but in the layout of their internal organs and the basic 'decisions' of biological design, they are mammals all the way.

This skeleton of a young tursiops will help
Skeleton.

(Dr. Lilly)

MS of bull, as at opening.

This was an Old Bull tursiops who taught us about the dolphin eye. See the shape of the iris: it has a curtain that comes down in the center when the light is bright. Note that the curtain bulges out, so that the light entering from above finds only a slit; yet there is a wide aperture for light coming from the dimmer waters below.

CUU eye.

(Female) See how the eyes move. Yet you can't find it in print that whales do not move their eyes. Our little whales move their eyes (Xreads in time to eye movements:) below, above, ahead and behind. They can look at their tails without turning their heads. As was mentioned before,

We found out that they could move their eyes separately with no apparent strain.

This is probably related to the

(Male) And the eyes move separately. They often watch two different things at once. This is probably related to something else we found out at the Communication Research Institute: that different sides of the dolphin's brain sleep at different times.

*Any clips from this research

(Creepy music)

But these were not the only surprises waiting to be discovered. Here now in the laboratory was the instrumentation-- high-powered electronic recorders and analyzers-- that could pick up the voice of the dolphin with fidelity, in and out of water. Now we heard the sounds in full (ups sounds, the works: blats and buzzings, squawks and squeals.) And the sounds were wondrous.

All the sounds you hear were actually made by dolphins of the species tursiops.

Oscilloscope pattern flashing.

Instruments
CU dolphin playing with hydrophone

Sonograph cranking out sonograms.

Elvar flexing himself, tooting.
CU sonogram

But these were not the only surprises waiting to be discovered. [illegible] We had heard many sounds from the dolphins. Here now in the laboratory was the instrumentation-- high-powered electronic recorders and analyzers-- that could pick up the [illegible] of the dolphin with fidelity, in and out [illegible] of water. Now we heard the sounds in full (upa sounds, the works: blats and buzzings, squawks and squeals.) And the sounds were wonderous . [illegible]

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They gesture with their mouths, but that is independent of sound production their.

Mouth opening independently.

They gesture with their mouths, but That is independent. They gestures wit

13

(The sounds fades but continue.)
There are at least two separate vocal organs within the dolphin head, although we have not been able to find out yet where the y are. (Dolphin whistles.) Besides which, they can whistle, and maneuver in the dark by their own reflected sonar buzzing. (Bzzz) Skeptics say there is no reason to suppose they have a true language.

Dolphin CUU

Blowhole twitching

Low-key underwater shots

Elvar & Cheechee swimming around.

(Dr. Lilly:)
But neither is there any reason at all to claim that they don't.

Miscellaneous several-dolphin indoor pool shots.

announcer:)
(Male:) What we want now is evidence.
(Dr. Lilly:) And that's what we're collecting.
(Female announcer.) But there is no Rosetta stone. But without any Rosetta stone
(Dr. Lilly:) This is a matter of months and years.

Fade out. Fade in:
Elvar doing tricks for a brushing.

(Male announcer:)

From the Miami Labx have come ~~an~~ publications analyzing some of the complexities of the sounds they make with one another. ~~Dr. Lilly and his assoc~~ ~~Dr. Lilly and his associates have also found that~~

Breakdowns of their interchanges of sound indicate that ~~th~~ although their noises come in bursts too fast for the human ear to distinguish, they do not seem to interrupt one another.

("Conversation" is heard through this.)

Elvar and Cheechee in moderate activity.

Dr. Lilly and his associates have also found that dolphins can be taught to imitate human speech.

~~*Ginger~~ holds out fish for Elvar.

~~(Ginger:)~~ One, Elvar.
(Elvar:) One.

(He gets and eats fish.)

They have to be bribed a little, though.

~~(Ginger:)~~ Two.
(Elvar:) Two. "

Aristotle said that dolphins could pronounce vowels very well.

~~(Ginger:)~~ Three.
(Elvar:) Ee. "

But he noted that they have trouble with consonants.

~~(Ginger:)~~ Four.
(Elvar:) Aw. "

Sometimes youm won't find this passage, though. Zealous editors ~~ex~~ often take it out to prevent Aristotle from looking silly.

Changes of angle, getting closer to Elvar ~~n~~ and leaving ~~Ginger~~ out, as we go through the numbers.

(Make sure)

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(He gets and eats fish.)

Changes of angle, getting
closer to Eivar a and leaving
Ginger out, as we go through
the number 8.

(Ginger:) Five.
(Elvar:) Five.
(Music is rising.)
(Ginger:) Six.
(Elvar:) Six seven.

(Cut to next shot without reward.)

Dolphins are enthusiastic.

(He eats.)

(Ginger:) Eight, Elvar.
(Elvar:) Eight.

CU Elvar.

(Elvar:) Nine.

VCU Elvar.

(Elvar:) Ten.
(Music up.)

We look at Elvar while he eats, looking at camera.

18'50"

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(Music is rising.)
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Dolphins are enthusiastic.

(Ginger:) Eight, Eivar.
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(Eivar:) Nine.

(Eivar:) Ten.
(Music up.)

(Cut to next shot without reverb.)

(Be cats.)

CU Eivar.

VCU Eivar.

We look at Eivar while he eats,
looking at camera.

nas to go dolphin hunting.

From time to time the Institute staff /

~~Catching dolphins was a tricky business.~~

This may look like a picnic to you,
but in fact it's an intricate business.

Dolphin hunt. People wear
funny straw hats, etc.

*CU people searching horizon

*CUU of everybody's face at moment
of throwing nets

The encirclement maneuver/

Your net must encircle them completely,
for with their sonar they immediately
find any hole and escape. Still, for
some reason they don't jump over,
which they could easily do.

We see dorsal fins encircled.

But you must be very careful that
none are caught in the net underwater.
For they will drown.

And you must be careful, bringing them
inboard, not to bend them too
suddenly, for their tails take on a permanent
bend.

Closing in

Once aboard, they may get seasick like you.

(Dr. Lilly:
Here was a little one we called Baby D. We caught her but not her mother.
(Whistling trains.)
Here she is being handled for the first time.
She was about the most lovable dolphin we ever had.

Taking care to keep her skin moist, we packed her off to the lab.

A dolphin out of water smells a little fishy and a little doggy. We did not keep this car very long after that.

(Female announcer:)
But when she got to the laboratory, it became apparent that she was not yet weaned.

She wouldn't touch fish.

She ignored a hose full of milk.

(Male announcer:) We couldn't keep her very long at that rate. We tried putting milk in a rubber glove.

(Female announcer:) But still she wouldn't take it--

(Music! Gentle, swelling.)

After that, whenever she wanted milk she would call us by knocking on the side of the tank with her flipper.

Like any baby dolphin, she banged up her chin from time to time.

(Male announcer.) Finally we lost her, probably from using the right formula . But all the time we were learning.

~~Today the oldest residents at the~~

Man wades in water to catch Baby D.

Man carries Baby D out of water.

Dolphin packed into Cadillac

Car drives away

Baby D refuses fish.

Baby D refuses fish.

Ignores milk.

Baby D hesitates over glove

Accepts milk!

Drinking milk with banged chin.

Baby D dead (fades fast.)

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(Music! (Gentle, swelling.)

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Dolphin packed into Cadillac

Car did yes away

Baby & D refuses fish.

Ignores milk.

Baby D hesitates over glove

Accepts milk!

Drinking milk with banged chin.

Today the oldest inmates at the Communication Research Institute are Elvar and Cheechee.
To get their attention for research we have to separate them. However, we kept finding them together when they'd been put apart. Only by sneaking in by spying did we discover that
Elvar had learned to open the partition , wriggle through , and close it so we wouldn't find out.

(Music. Splashing.)

Elvar and Cheechee together in separate tanks.

Elvar& Cheechee together.

Partition begins to rise

He wriggles through
He closes it.

They swim around. Shots from above and underwater.
"Little red flag" is seen just enough for information , not enough for censorship or big laugh.

Like any other mammals, dolphins like to snuggle.
And like other mammals, they don't like to be bothered.
They have enormous belly buttons.

Snuggling

Cheechee squirts polyethylene curtain.
Somersault demonstrates navel

Elvar & Cheechee

Keeping dolphins in laboratories, while it can be fun, is no casual matter.
You can stack 400 research rats or 20 research monkeys up against one wall. But these animals need running clean water in profusion.
They must get 20 pounds of fish-- preferably butterfish-- from you each day, and learn to eat them dead, rather than alive from the ocean.

INSERT 1 (next p.)
INSERT 2 they become sick

Feeding at St. Thomas lab: from raft

And you, in turn, can use this feeding as an opportun ity to get close to them. See the gesture with the head, asking to be fed without having to come near you.

Feeding from the shore

~~Simply maintaining a laboratory is such a job~~

This is one of the reasons

Partly because it's such a job keeping a laboratory going, ~~the contributions of~~ visiting sc ientists ~~are especially welcome.~~ can contribute so much. So much time and effort is needed just to keep a laboratory going.

that

*Dr. Morgane sketches brain

* Dr. Schiller, ~~with whipboard,~~ conditioning Elvar

ON TO ~~NEXT~~ NEXT INSERT

They become sick in interesting ways many different ways. This little dolphin has something roughly corresponding to our measles. Curiously, though, the sores are rectangular. He looks as though he's been covered with postage stamps.

Here The are

Taking his temperature to find out whether he's getting any worse. The normal temperature of a dolphin-- under the insulating blubber-- is 98.6.

Baby with erysipelas, swimming around with Mother.

He is caught

Taking temperature.

Baby with erysipelas, swimming
around with Mother.

He's a lax caught

Taking temperature.

But they learn to approach.

Mark feeding Mother and Baby in pool
Mark squatting on little bench in pool, feeding Mother and Baby.

And, while in a laboratory it is hard to get as close to them as you can to a pet,
a great deal of camaraderie can be achieved.

George holds hoop, Baby goes through

Their mischievousness is not a constant joy.

Willie trying to clean pool.
Cheechee squirts him again and again.

But whenever you are near these animals, you cannot help being aware of their presence as personalities.

Elvar and Cheechee; Sissy and Chuck; Mother and Baby.

Elvar is watching you. Be careful if you want to stay dry.

*Elvar in plexiglas tank, watching us

Here Cheechee is swimming with someone who is a stranger to her.

(Man Cheechee with man from United Aircraft

This is the grey tursiops, in the lab.

Cheechee swims around.
Cheechee comes
Twin
Sissy swims around; hoists onto side and looks at camera.

other interesting things happening between man & dolphin, though.

There are many other ~~things in the dolphin world, of interest, though.~~

This is perhaps the most famous living dolphin, Snowball, caught off the Carolinas by Miami's Seaquarium, where you see her. Despite her unusual coloring-- all white *with red eyes, like albinos of other species-- she appears to be a normal tursiops, like the baby cuaght with her, who never leaves her side.

Of all things we have found to interest a dolphin, the most fascinating is toes. (Splash, gasps, soft quackings.)

Ginger and Alice dabble toes in water, are approached by Snowball and calf.

But they have learn to approach.

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to get as close to them as you can to
a pet,
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Mother and Baby.

*Eivar in plexiglas tank, watching us

Man Cheechee with man from
United Aircraft

Baby swims around; holds onto side
and looks at camera.

Mark squatting in pool, on little bench
in pool, leading Mother and Baby.

Ginger and Alice double toss
in water, are approached

(female announcer:)

This is one of the littledolphins of the Amazon River, INia Geofrensis.
It is from one of five species of fresh-water dolphin scattered about the world.
They are all called 'primitive' in type because their type is no longer found in the ocean. This one liked to swim upside down.
Their body plan and style of adaptation evidently could not compete in the changing seas.
(Tender music.)

Inia.

Swims upside down.

Inia floats away, tummy up.

Man and dolphin--especially dolphins and little boys-- have had a special kind of friendship for thousands of years.

Little boys and dolphin. They swim Chasing. Holding and kissing.

So in a way there is nothing new about what science is doing now. The electronics are new and high-speed photography are new, of course; so are the pumps and the antibiotics. But the relationship is very, very old.

One little boy kisses one little dolphin.

(Swirl of music.)

Pool at St. Thomas. Shots of Sandy with Sissy: from above, from side.

With practice we can get close.
People love to play with dolphins;

Sissy pushes Sandy by armpit

and dolphins love to push people around.

They are as curious about the world as we. Look at Sissy, looking around.
This posture may be the reason tursiops is called 'bottle'-nosed.'

Sissy sticks head straight out.

(Male announcer:)

More affectionate swimming

How smart are they? Can you tell?
The fact that their brains -- and those of the larger whales-- are so much bigger than ours leads to some awesome ~~conjecture~~. questions.
Can you discuss nuclear physics with a dolphin, as has happened in science-fiction?
Well, how many people have you discussed nuclear physics with? Lately, that is.

Overhead shots

When we meet intelligent creatures in outer space — a century from somewhere or next year — will we know how to speak to them? Can we learn fast enough to say "we want to be friends" — in time? We are practicing here on earth.

Dr's room

This is one of the little dolphins of the Amazon River, Inia Geoffrensis.
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Inia floats away, tummy up.

Baby Walkaway Chasing. Holding and kissing.

One little boy kisses one little dolphin

Pool at St. Thomas. Shots of Sandy with Stacy: from above, from side.

Stacy pushes Sandy [illegible]

Stacy sticks head straight out.

More affectionate swimming

CLOSING SEQUENCE

*The dry room of the lab. Ginger is at her tapes, JCL is pottering with the oscilloscope electronics. All at once a great and varied racket is heard from the animals. Shot of oscilloscope screen, jiggling in synch with it. JCL beckons to assistants, who come to look at it. Quick studies of their faces -- sober but dedicated, eagerly perplexed at this new thing. MS of all of them, one by one, looking and listening. Then successive telephoto shots past them into the bay. Bay through window in BG.

Finish on shot of just water, with beams of light coming out of clouds from sun. Telephoto of sun, and clouds and sea (double printed.) Sea fades into light. Fade out, no title.

(All at once a great and varied racket is heard from the animals.)

(MUSIC UP, pauses; Music up, pauses; dolphin sounds up, pause; both knit in music's end.)

(Sheet 28'.

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CRI: MOVIE SCRIPT ~~IN PROGRESS~~ FIRST DRAFT